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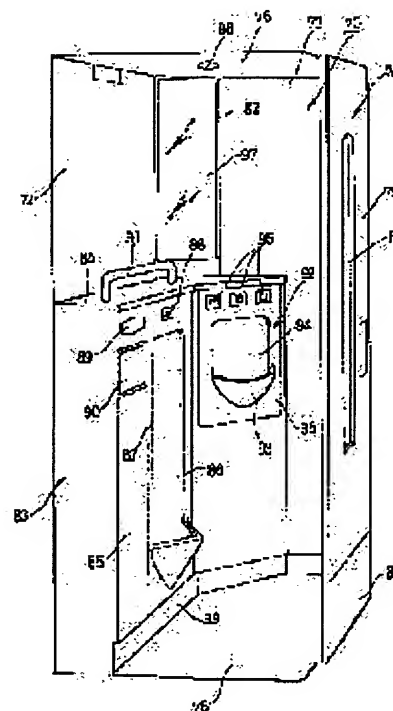
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(54) LAVATORY OF AIRCRAFT

(57)Abstract:

PURPOSE: To improve the rational use of the lavatory of an aircraft, alleviation of congestion, and sanitary use, and to provide the lavatory of the aircraft capable of being easily used by passengers, and having high convenience, for using the aircraft comfortably.

CONSTITUTION: In the lavatory of an aircraft, a men's rest room 70 for urine is divided and independently formed aside from a ladies' room, and a piping case 83 is arranged along wall surfaces 72, 73 by the wall. The piping case 83 is composed of a counter 84 and a front panel 85, and a urinal 86 is provided on the one side of the front panel 85, and the washstand 92 is provided on the other side. A handrail 91 is arranged on the counter, and a dressing mirror 97 is provided at the corner between the wall surfaces 72, 73. Moreover, a protective kick plate 81 is provided on the lower part of a door 78 of the doorway in preparation for opening and closing of the door by kicking with shoes.



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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Industrial Application] This invention relates to amelioration of the lavatory of the aircraft.

[0002]

[Description of the Prior Art] the lavatory furnished to the aircraft for passengers -- both short distance operation and long-distance operation -- although -- it is constituted as a toilet room of urine-and-feces combination, and devices, such as a toilet bowl, a washbasin, a mirror for makeup, and a dust box, are arranged in the interior of a toilet room.

[0003]

[Problem(s) to be Solved by the Invention] by the way, because of urine-and-feces combination, boy smallness is faced, the case where a floor line, a toilet bowl, and the periphery of this become dirty from the shake under flight etc. is alike occasionally, and has been carried out, an operating environment becomes insanitary in many cases, and the lavatory of the aircraft faces a seat using it, and is use top dysphoria, and is not sanitarily desirable.

[0004] moreover, the object for boy smallness -- facing -- the object for woman smallness, the object for stools, and combination sake -- the toilet room of combination [irrespective of / the object for boy smallness] -- not using it -- the need of not obtaining, but also becoming the cause of confusion of the lavatory of this seed aircraft, and being unable to say that it is rational in respect of lavatory availability, but aiming at improvement in the user-friendliness nature of a lavatory and rational use is high.

[0005] The place which it was made that this invention should solve the technical problem which the aircraft requires, and is made into the purpose aims at rational use of the lavatory of the aircraft, relaxation of confusion, and sanitary use, and they tend to be used for it for a passenger, and its user-friendliness nature is good and is to offer the lavatory of the aircraft which enabled it to use the aircraft comfortably.

[0006]

[Means for Solving the Problem] The above The means for solving a technical problem is the lavatory of the aircraft which installed the toilet room for boy urine which was divided with the toilet room for stools and became independent to this toilet room in this lavatory in the lavatory established in the aircraft. moreover, plane view is an abbreviation rectangle, and the above-mentioned toilet room for urine equips an entrance with a door, and arranges a urinal in the wall surface which counters a door -- both, a urinal is adjoined and a washbasin is arranged. In addition to the above, the mirror for getup is formed in the internal surface of the toilet room for urine. Furthermore, the above-mentioned toilet room for urine equips an entrance with a door, and this door prepares the kick plate corresponding to door closing motion according tabular to the foot press of shoes outside at the lower part of nothing and a door. Furthermore, the above-mentioned toilet room for urine is arranged again so that devices, such as a urinal, may estrange from a floor line.

[0007]

[Function] According to the above-mentioned means, since it has a toilet room for boy smallness, the

lavatory of the aircraft can use this in the case for boy smallness, and the need of it of facing boy smallness like before and using the toilet of the combination for size is lost, and it can hold the cleanliness of the toilet of the combination for size. Moreover, use of a rational lavatory is attained from there being no need of making the object for boy smallness serve a double purpose, confusion relaxation of lavatory use can be aimed at, it is sanitary and the lavatory where user-friendliness nature is good is obtained highly [availability]. Furthermore, since the mirror is installed in the toilet room for boy smallness, it can carry out, without an easy getup etc. using the toilet room for stools. And since a door also has a kick plate in the lower part, it is rare for a door to hurt. Furthermore, since the device of a toilet room estranges and is installed from the floor line, it is easy to carry out ** payment of floor cleaning or a device, and good also in respect of maintenance nature, such as cleaning.

[0008]

[Example] Next, according to the drawing which attached one example of this invention, it explains in full detail. The explanatory perspective view of the toilet room for urine of a lavatory of the aircraft which drawing 1 requires for this invention, The front view of the above-mentioned interior of a room [drawing 2] and drawing 3 the vertical section side elevation of the above-mentioned toilet room, and drawing 4 R> 4 The explanatory top view of the above-mentioned toilet room, The explanatory perspective view of the toilet room for stools and drawing 9 of the typical top view of the lavatory where drawing 5 fractures the front view of the door of the above-mentioned toilet room, drawing 6 fractures the important section of the aircraft, and the shown explanatory top view and drawing 7 contain this invention, and drawing 8 are the explanatory perspective views of a washing-their-face makeup room.

[0009] In drawing 6 , 1 is an aircraft for the passengers for long distances, and the lavatory 4 is symmetrically arranged in the example of an airframe 2 inside the wall surfaces 3 and 3 of middle posterior part right and left. Paths 5 and 5 are formed inside lavatories 4 and 4, a utility space 6 is formed in the meantime, and seat-for-audience 7 -- is prepared in forward and backward.

[0010] A lavatory 4 is typically shown in drawing 7 as a top view, the cross direction of an airframe 2 is adjoined from this side in the example at the toilet room 8 for stools, and this, the washing-their-face makeup room 34, then this are adjoined, and the toilet room 70 for urine is arranged in order. Each of each toilet rooms 8 and 70 and the washing-its-face makeup room 34 is divided, and is constituted as an independent room.

[0011] If the toilet room 8 for stools outlines this as it is shown in drawing 8 , it is formed at peripheral walls 9, 10, 11, and 12, a floor 13, and the head lining 14, and the foreign style toilet bowl 15 is installed inside [lower] the wall surface 9. The bottom half section of the wall surface 10 by the side of the side attachment wall 3 of an airframe 2 is equipped with a counter 16 and the front plate 17 which hung from the front end edge of this, and the control section 20 of a toilet bowl ancillary device is formed in the front plate 17 which hits the side face of a toilet bowl 15 at the input port 18 of a sanitary container, the output port 19 of toilet paper, and the upper counter 16 front-end section of this.

[0012] The washbasin 21 is arranged on the part which approached the wall surface 11 from the pars intermedia of a counter 16. An aperture 22, the shelf 23-1 which contains the so-called steamed towel which consists of a wet towel, the receipt shelf 23 which contains and takes out the dry towel, a mirror 24, the accessories receipt shelf 25, and the output port 26 that can contain a paper towel are arranged in the Johan section of a wall surface 10 from a toilet bowl side-face side, and the input port 28 of a dust box is established in the pars intermedia of the front plate 17 at the receipt basket [of a used steamed towel or a towel] 27, and wall surface 11 side.

[0013] Moreover, the spare clothing floor 30 from which a balustrade 29 bends forward, estranges to a floor line, and becomes parallel at the bottom half section of a wall surface 11 pulls out to the pars intermedia of the height direction, it is installed in it free [storing] by the wall surface 11, and, as for drawing, a storing condition is shown in it. Lighting fitting 31 is arranged, an outer wall 32 approaches the outside of this, the wall surface 12 which faces a path 5 is estranged on the head lining 14, it is installed in it, and the door 33 which makes an entrance is formed in it.

[0014] The above-mentioned toilet room 8 for stools is adjoined, and the washing-its-face makeup room 34 is arranged behind the airframe cross direction in the example. As the washing-its-face makeup room

34 is shown in drawing 9 , it is formed at peripheral walls 35, 36, 37, and 38, a floor 39, and the head lining 40, a washstand 41 is formed in the bottom half section of the wall surface 35 of anterior part, and a washstand 41 is equipped with the counter 42 of an upper limit side, and the lower cabinet 43. The washing-their-face ball 44 and the hydrant 45 grade are installed in the counter 42, it estranges with the input port 47 of dust boxes, such as bundle receipt, and this the output port 46 of the plastic bag for sanitary containers, and under this in the upper part at the transverse plane of a cabinet 43, the common dust box 48 is formed, and the makeup mirror 49 is installed in the Johan section of a wall surface 35.

[0015] A counter 50 protrudes on the bottom half section of the wall surface 36 by the side of an airframe side attachment wall, and the apron 51 where a height dimension is small hangs, and is installed in the front end section of a counter 50. The receipt basket 52 of a used steamed towel or a towel is arranged by the cabinet 43 approach part of counter 50 lower part, and the stool 53 used for it, making this side carry out tilt pulls out into the part which approached the wall surface 37 of counter 50 lower part, and is installed in it free [storing]. The stowage 54 where the dry towel can carry out ejection of the counters 50 and 42 to the intersection of this continuously, the wet receipt shelf 55 of *****, and the longwise cabinet 57 which has output port 56 grades, such as tissue paper and a paper towel, in the lower part are arranged, and the balustrade 58 is fixed to the side face of this.

[0016] A mirror on either side pulls out to a near-side and wall surface side, and the three-way mirror 59 whose storing was enabled is installed in the wall surface of the stool upper part of a wall surface 36. Although not expressed to drawing 9 , it pulls out in the Johan section of a wall surface 37 from a wall surface, and as the bed 60 for sucklings whose storing was enabled shows with the fictitious outline A of drawing 7 , it is prepared in it. Lighting fitting 61 is installed in head lining, it approaches and estranges in the outside of the wall surface by the side of a path 5, an outer wall 62 is formed in it, and the door 63 which makes an entrance into this part is formed in it.

[0017] In the above lavatory 8, the toilet room 70 for boy urine is arranged in the back where the washing-its-face makeup room 34 adjoins by the cross-direction posterior part of an airframe 3 in the example. As the toilet room 70 for boy urine is shown in drawing 1 thru/or drawing 5 , the plane view abbreviation rectangle is formed at nothing, peripheral walls 71, 72, 73, and 74, a floor 75, and the head lining 76.

[0018] The outer wall 76 approached and estranged is formed in the outside of the wall surface 74 by the side of a path 5, this etc. establishes an entrance 77 in wall surfaces 74 and 76, and the door 78 is formed in the entrance 77 free [closing motion]. A door 78 is rocked, opened and closed at a path and interior-of-a-room side as a hinge which does not illustrate one side edge as shows drawing 1 and drawing 5 . It consists of synthetic resin or a wooden plate, the longwise check-by-looking aperture 80 is formed in the center section of the body 79, and the body 79 of a door 78 sticks on an inside-and-outside front face the kick plate 81 which protects the lower part in consideration of the case where kick at this part with shoes in the lower part, and a door 78 is opened and closed, and forms the kick plate 81 with a stainless steel plate etc. in consideration of appearance nature, that it is hard to get damaged, being easy to carry out ** payment, etc.

[0019] It applies to the wall surface 73 by the side of airframe back from the wall surface 72 which counters a door 78, and the piping case 83 of a plane view abbreviation L type is set up along with a wall surface. The piping case 83 is formed in the middle upper part thru/or the lower part of the height direction of a wall surface, the narrow slanting corner wall surface 82 which connects during this period is formed in the corner section of wall surfaces 72 and 73, therefore the piping case 83 is constituted so that a tooth back may contact each wall surfaces 72, 73, and 82 according to this.

[0020] The piping case 83 is carrying out the interior of a non-illustrated drain pipe, a feed pipe, a feed valve, the control unit of this, the control unit of a washbasin, etc., and is equipped with the front plate 85 hung and set up by the top face at a counter 84 and the counter front end section. As the urinal 86 for boys was specified by drawing 3 by the part which was parallel to the door 78 of the piping case 83, and approached the part which counters at the corner side, it is prepared in the half-embedding type. The sensor 88 which senses use is installed in the upper part of the rim section 87 around this toilet bowl, and it is constituted so that the wash water after use may be supplied.

[0021] The output port 89 of a paper towel and the input port 90 of the dust box caudad opened by press actuation are established in the upper part, and the balustrade 91 of the letter of the abbreviation for U characters is ****(ed) on the counter 84 of the upper parts, such as this, by the part which approached the wall surface 71 side of the front plate 85. The above-mentioned toilet bowl 86 is a half-embedding type as mentioned above, and the lower part has estranged and projected it from the floor line 75 to the interior-of-a-room side.

[0022] A washbasin 92 is installed in the part applied to the wall surface 73 at a half-embedding ceremony like the above-mentioned toilet bowl at the Johan section from the corner wall surface 82 in which the front plate 85 of the piping case 83 carried out [above-mentioned] the inclination. The ball section 93 first portion is laid under the interior-of-a-room side, and, as for the washbasin 92, the upper part section of a projection and the ball section 93 is laid underground in the piping case 83 as a crevice 94. It is constituted so that a sensor and handler 96 -- are arranged in the upper part of the flat perimeter [of a washbasin 92] rim section 95, it may sense having inserted the hand into the crevice 94, and the wash water for a restroom may be supplied and warm air desiccation may be performed.

[0023] The mirror 97 for getup is installed, lighting fitting 98 is formed in head lining, and the core print section 99 is formed in the lower part which touches the floor line 75 of the front plate 85 of the piping case 83 as the concave section under which it went at one-step back at the Johan section of the wall surface 72 besides above, and the inclination wall surface 82 between 73. The toilet bowl 86 lower part and the ball section 93 of a washbasin 92 which project in the above interior of a room all project, an amount is small, it estranges from a floor line 75 and there is [a device is constituted so that it may project,] no excrescence in a floor line 75.

[0024] in the above , in a passenger aircraft , although the toilet room 70 of the dedication for boy smallness be formed , since necessary minimum be sufficient for indoor width of face to use it , as for the dimension of an indoor cross direction , the washbasin 92 made the inclined plane the corner section 82 of wall surfaces 72 and 73 , the half-section of the front face plate 85 of a piping case became slant and the washbasin 92 be installed in this part , the overall depth of a wall surface 73 become small , and miniaturization can be attain .

[0025] In addition, although drawing 7 shows the example of modification of the toilet room for boy urine, as shown in drawing, it makes plane view of a toilet room the rectangle of deformation, and you may make it distribute a toilet bowl 86 and a washbasin 92 to right and left of the counter 94 of a plane view V type. Moreover, the concrete configuration of a toilet bowl or a washbasin is not restricted to an example, but is arbitrary.

[0026]

[Effect of the Invention] Since the toilet room for boy urine was installed separately apart from the toilet room for stools, the lavatory which constitutes one kind of toilet of size combination above like before in the aircraft according to this invention so that clearly The floor line and toilet bowl which originate in the shake under flight etc. by the object for boy smallness conventionally in the case of an errand, The dirt by the errand of a toilet bowl periphery can be lost, the cleanliness of the object for woman smallness and the toilet room for stools can be secured, sanitary use can be performed, and use of the toilet room accompanied by a dirty feeling can carry out comfortably sanitarily sometimes.

[0027] moreover, the toilet room of the dedication for boy smallness -- it is -- a standing position -- small -- business -- in order to use it for dedication -- dirt like the conventional toilet -- being easy -- it is rare to become a gestalt, and the toilet room for urine can also be used cleanly sanitarily, and can perform comfortable use. And confusion by the inconvenience accompanying the lavatory having used by one kind conventionally also in any for the object for woman smallness, the object for stools, and boy smallness, i.e., all errands, concentrating on one kind of lavatory can be solved by having made the lavatory into the functional order as mentioned above, relaxation of confusion of the lavatory of the passenger aircraft and comfortable use can be attained, and a trip of the empty by the aircraft can carry out now comfortably.

[0028] Furthermore, although there is a trend to divide independently the toilet room for boy urine, to install it, to face opening and closing at a door, to kick at the door lower part, and to perform door

closing motion, since the kick plate was prepared in the lower part of a door, the door lower part is protected and the door for toilets with high endurance is obtained. Moreover, since the device furnished indoors was estranged up and arranged from the floor line, even if it is under a condition with the shake under flight etc., it easy-izes from cleaning of a floor line not having the excrescence, and a floor line can be cleaned easily, ** payment of a device etc. is easy-ized and the good toilet room for boy urine of maintenance nature, such as cleaning, is obtained. and since the mirror was installed in the toilet room for boy urine using the wall surface, it can be dressed in hairdressing, correction of a necktie, etc., there is no need of using the toilet room for stools one by one whenever it is getup, rational use of a toilet room can be performed, and user-friendliness nature is very good -- etc. -- there is a great advantage.

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CLAIMS

[Claim(s)]

[Claim 1] The lavatory of the aircraft characterized by what it was divided with the toilet room for stools, and the toilet room for boy urine which became independent to this toilet room was installed in the above-mentioned lavatory for in the lavatory established in the aircraft.

[Claim 2] The above-mentioned toilet room for urine is the lavatory of the aircraft of claim 1 which arranges a urinal in the wall surface to which plane view is an abbreviation rectangle, equips an entrance with a door, and counters a door and which adjoined the urinal and both arranged the washbasin.

[Claim 3] Claim 1 which formed the mirror for getup in the internal surface of the above-mentioned toilet room for urine, or the lavatory of the aircraft of 2.

[Claim 4] The above-mentioned toilet room for urine is the lavatory of the aircraft of claim 2 which prepared the kick plate corresponding to door closing motion equip an entrance with a door and according [this door] tabular to the foot press of shoes to the lower part of nothing and a door outside.

[Claim 5] The above-mentioned toilet room for urine is the lavatory of the aircraft of claim 1 currently arranged so that devices, such as a urinal, may estrange from a floor line.

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] The explanatory perspective view of the toilet room for urine of a lavatory of the aircraft concerning this invention

[Drawing 2] The indoor front view of the above-mentioned toilet room for urine

[Drawing 3] The vertical section side elevation of the above-mentioned toilet room for urine

[Drawing 4] The explanatory top view of the above-mentioned toilet room for urine

[Drawing 5] The front view of the door of the above-mentioned toilet room for urine

[Drawing 6] The explanatory top view having fractured and shown the important section of the aircraft

[Drawing 7] The typical top view of the lavatory of the aircraft containing this invention

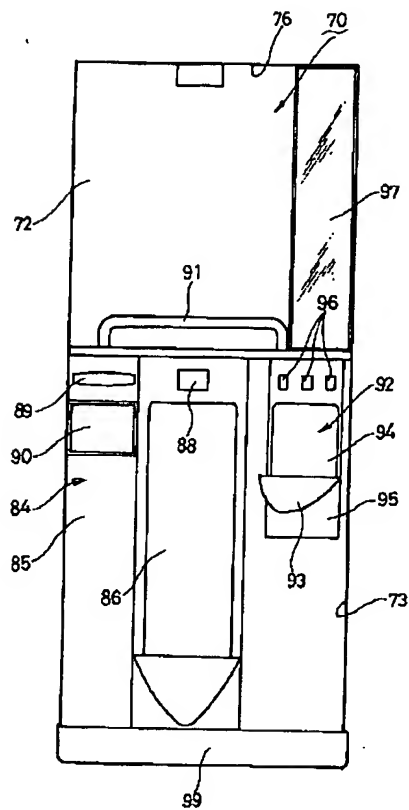
[Drawing 8] The explanatory perspective view of the toilet room for stools of the above-mentioned lavatory

[Drawing 9] The explanatory perspective view of the washing-its-face makeup room prepared in the above-mentioned lavatory

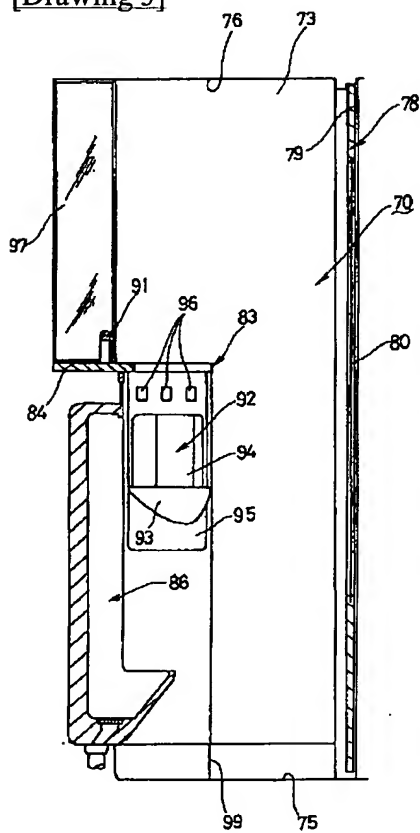
[Description of Notations]

1 -- Aircraft 4 -- Lavatory 8 -- Toilet room for stools 70 -- Toilet room for boy urine 71, 72, 73, 74 -- Wall surface 75 -- Floor line 78 -- Door 81 -- Kick plate 86 -- Urinal 92 -- Washbasin 97 -- Mirror for getup.

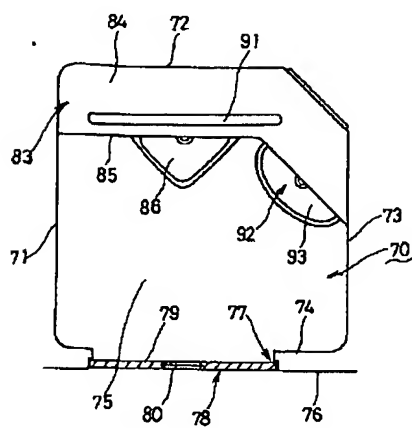
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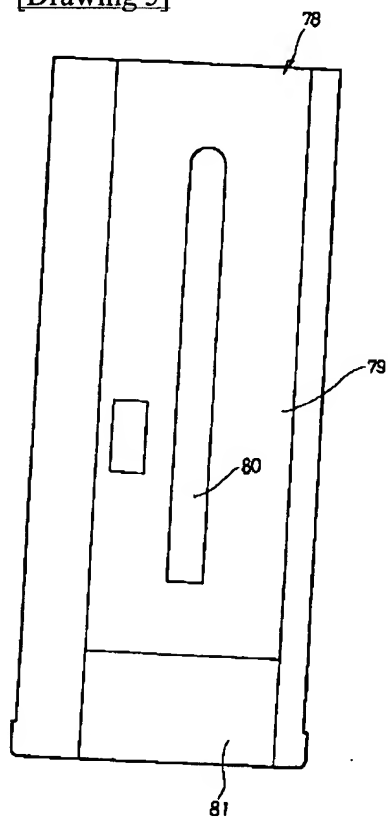
[Drawing 3]



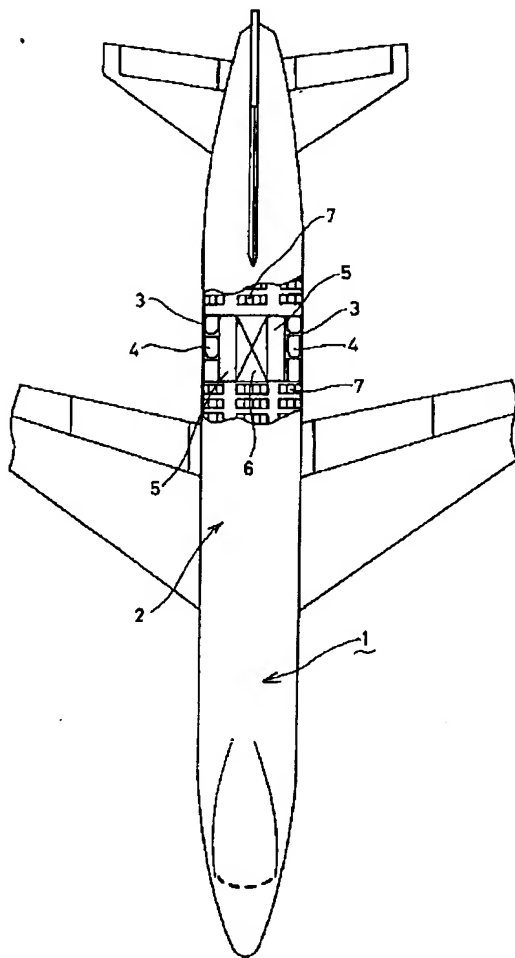
[Drawing 4]



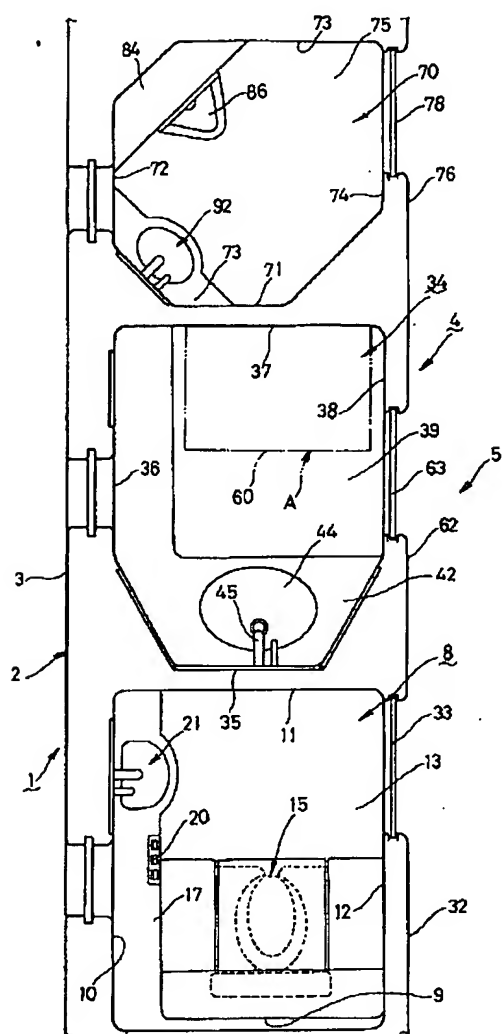
[Drawing 5]



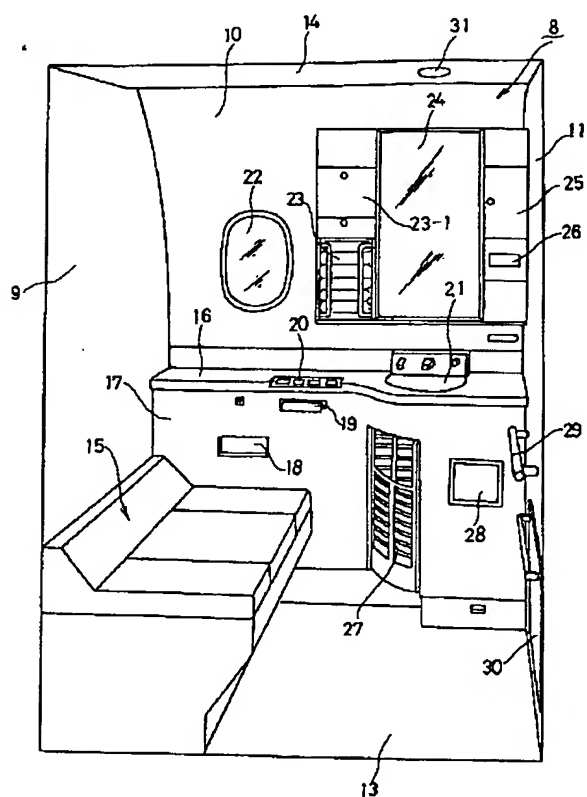
[Drawing 6]



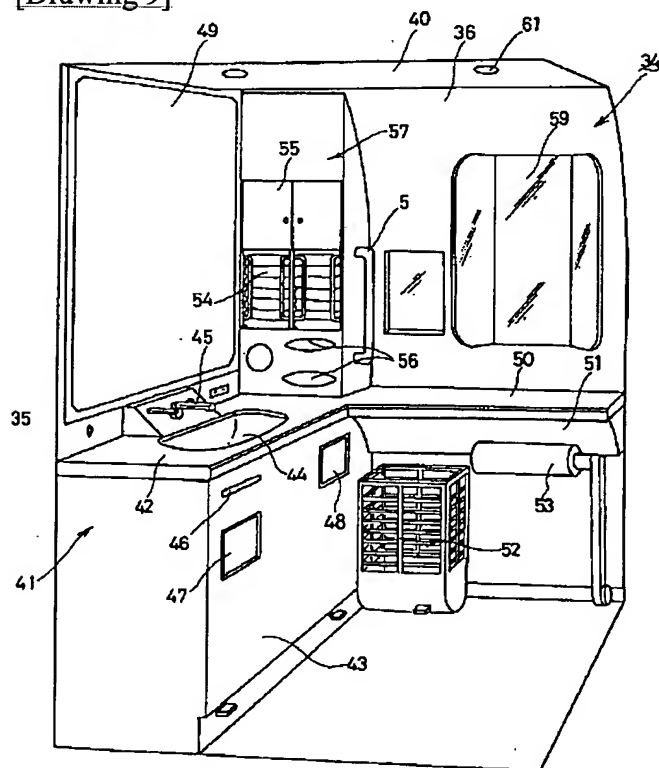
[Drawing 7]



[Drawing 8]



[Drawing 9]



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